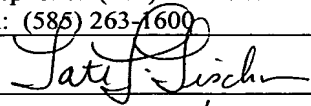


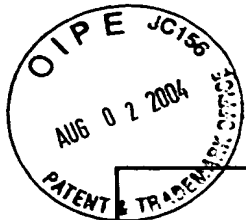
DFW

TRANSMITTAL FORM <i>(to be used for all correspondence after initial filing)</i>		Application Number	10/796,442
		Filing Date	March 9, 2004
		First Named Inventor	Swihart
		Group Art Unit	2812
		Examiner Name	Unknown
Total Number of Pages in This Submission	6	Attorney Docket Number	19226/2282 (R-5782)

ENCLOSURES (check all that apply)		
<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment / Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input checked="" type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/Incomplete Application <input type="checkbox"/> A copy of the Notice to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Assignment Papers (for an Application) <input type="checkbox"/> Drawing(s) <input type="checkbox"/> Declaration and Power of Attorney <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____	<input type="checkbox"/> After Allowance Communication to Group <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input type="checkbox"/> Application Data Sheet <input type="checkbox"/> Request for Corrected Filing Receipt with Enclosures <input checked="" type="checkbox"/> A self-addressed, prepaid postcard for acknowledging receipt <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below): <input checked="" type="checkbox"/> PTO-1449 Form (in duplicate) with 34 references attached
Remarks	<input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge any additional fees required or credit any overpayments to Deposit Account No. 14-1138 for the above identified docket number.	

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT	
Firm or Individual name	Tate Tischner Nixon Peabody LLP Clinton Square, P.O. Box 31051 Rochester, New York 14603-1051 Telephone: (585) 263-1363 Fax: (585) 263-1600
Signature	 Registration No. 56,048
Date	7/30/04

CERTIFICATE OF MAILING OR TRANSMISSION [37 CFR 1.8(a)]	
I hereby certify that this correspondence is being:	
<input checked="" type="checkbox"/> deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450	
<input type="checkbox"/> transmitted by facsimile on the date shown below to the United States Patent and Trademark Office at (703) _____	
<u>July 30, 2004</u> Date	<u>Ruth R. Smith</u> Signature Ruth R. Smith Typed or printed name



TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

	Application Number	10/796,442	
	Filing Date	March 9, 2004	
	First Named Inventor	Swihart	
	Group Art Unit	2812	
	Examiner Name	Unknown	
Total Number of Pages in This Submission	6	Attorney Docket Number	19226/2282 (R-5782)

ENCLOSURES (check all that apply)

<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment / Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input checked="" type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/Incomplete Application <input type="checkbox"/> A copy of the Notice to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Assignment Papers (for an Application) <input type="checkbox"/> Drawing(s) <input type="checkbox"/> Declaration and Power of Attorney <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____	<input type="checkbox"/> After Allowance Communication to Group <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input type="checkbox"/> Application Data Sheet <input type="checkbox"/> Request for Corrected Filing Receipt with Enclosures <input checked="" type="checkbox"/> A self-addressed, prepaid postcard for acknowledging receipt <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below): <input checked="" type="checkbox"/> PTO-1449 Form (in duplicate) with 34 references attached
Remarks		<input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge any additional fees required or credit any overpayments to Deposit Account No. 14-1138 for the above identified docket number.

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm or Individual name	Tatè Tischner Nixon Peabody LLP Clinton Square, P.O. Box 31051 Rochester, New York 14603-1051 Telephone: (585) 263-1363 Fax: (585) 263-1600	Registration No. 56,048
Signature		
Date	7/30/04	

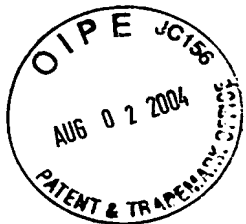
CERTIFICATE OF MAILING OR TRANSMISSION [37 CFR 1.8(a)]

I hereby certify that this correspondence is being:

- ☒ deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450
- ☐ transmitted by facsimile on the date shown below to the United States Patent and Trademark Office at (703) _____

July 30, 2004
Date

Ruth R. Smith
Signature
Ruth R. Smith
Typed or printed name



PATENT
Docket No.: 19226/2282 (R-5782)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : Swihart et al.

Serial No. : 10/796,442

Cnfrm. No. : 1817

Filed : March 9, 2004

For : PROCESS FOR PREPARING LUMINESCENT
SILICON NANOPARTICLES

Examiner:

Art Unit:
2812

INFORMATION DISCLOSURE STATEMENT
UNDER 37 CFR §§ 1.97-1.98

Mail Stop Amendment

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Pursuant to 37 CFR §§ 1.97-1.98, applicant hereby brings to the attention of the United States Patent and Trademark Office, the enclosed references listed on the attached PTO-1449 form. Copies of the non-U.S. Patent references are provided.

Pursuant to 37 CFR § 1.97(b)(3), no fee is required. Should it be determined that a fee is required, however, the Commissioner is authorized to charge that fee to Deposit Account No. 14-1138.

Respectfully submitted,

Date: 7/30/04

Tate Tischner
Registration No. 56,048

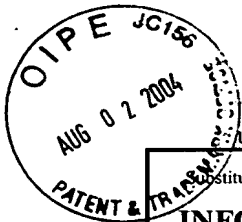
NIXON PEABODY LLP
Clinton Square, P.O. Box 31051
Rochester, New York 14603-1051
Telephone: (585) 263-1363
Facsimile: (585) 263-1600

R786968.1

Certificate of Mailing - 37 CFR 1.8(a)

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to:
Commissioner for Patents P.O. Box 1450
Alexandria, VA 22313-1450, on the date below.

July 30, 2004 Ruth R. Smith
Date Ruth R. Smith



Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Complete if Known	
				Application Number	10/796,442
				Filing Date	March 9, 2004
				First Named Inventor	Swihart et al.
				Art Unit	2812
				Examiner Name	To Be Assigned
				Attorney Docket Number	19226/2282 (R-5782)
Sheet	1	of	4		

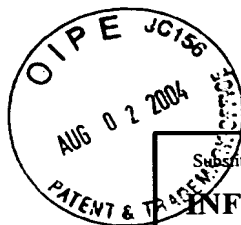
U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	U.S. Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code ² (if known)			
	1	US-6,471,930	10/29/2002	Kambe et al.	
	2	US-2002/0142218	10/03/2002	Reitz et al.	
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³ Number ⁴ Kind Code ⁵ (if known)				

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at 222.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.



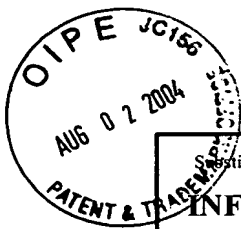
Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Complete if Known			
				Application Number		10/796,442	
				Filing Date		March 9, 2004	
				First Named Inventor		Swihart et al.	
				Group Art Unit		2812	
				Examiner Name		To Be Assigned	
Sheet	2	of	4	Attorney Docket Number		19226/2282 (R-5782)	

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS				
Examiner Initials [*]	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.		T ²
	3	Ostraat et al., "Ultraclean Two-Stage Aerosol Reactor for Production of Oxide-Passivated Silicon Nanoparticles for Novel Memory Devices," <i>J. Electrochem. Soc.</i> 148:G265-G270 (2001)		
	4	Ostraat et al., "Synthesis and Characterization of Aerosol Silicon Nanocrystal Nonvolatile Floating-Gate Memory Devices," <i>Applied Physics Letters</i> 79:433-435 (2001)		
	5	Ding et al., "Electrochemistry and Electrogenenerated Chemiluminescence from Silicon Nanocrystal Quantum Dots," <i>Science</i> 296:1293-1297 (2002)		
	6	Brus, "Luminescence of Silicon Materials: Chains, Sheets, Nanocrystals, Nanowires, Microcrystals, and Porous Silicon," <i>J. Phys. Chem.</i> 98:3575-3581 (1994)		
	7	Brus et al., "Electronic Spectroscopy and Photophysics of Si Nanocrystals: Relationship to Bulk c-Si and Porous Si," <i>J. Am. Chem. Soc.</i> 117:2915-2922 (1995)		
	8	Nayfeh et al., "Stimulated Blue Emission in Reconstituted Films of Ultrasmall Silicon Nanoparticles," <i>Applied Physics Letters</i> 78:1131-1133 (2001)		
	9	Holmes et al., "Highly Luminescent Silicon Nanocrystals with Discrete Optical Transitions," <i>J. Am. Chem. Soc.</i> 123:3743-3748 (2001)		
	10	English et al., "Size Tunable Visible Luminescence from Individual Organic Monolayer Stabilized Silicon Nanocrystal Quantum Dots," <i>Nano Letters</i> 2:681-685 (2002)		
	11	Baldwin et al., "Solution Reduction Synthesis of Surface Stabilized Silicon Nanoparticles," <i>Chem. Commun.</i> 1822-1823 (2002)		
	12	Heath, "A Liquid-Solution-Phase Synthesis of Crystalline Silicon," <i>Science</i> 258:1131-1133 (1992)		
	13	Belomoin et al., "Observation of a Magic Discrete Family of Ultrabright Si Nanoparticles," <i>Applied Physics Letters</i> 80:841-843 (2002)		
	14	Nayfeh et al., "Second Harmonic Generation in Microcrystallite Films of Ultrasmall Si Nanoparticles," <i>Applied Physics Letters</i> 77:4086-4088 (2000)		

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

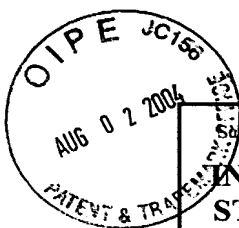
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Complete if Known			
				Application Number		10/796,442	
				Filing Date		March 9, 2004	
				First Named Inventor		Swihart et al.	
				Group Art Unit		2812	
				Examiner Name		To Be Assigned	
Sheet	3	of	4	Attorney Docket Number		19226/2282 (R-5782)	

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials [*]	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	15	Bley et al., "A Low-Temperature Solution Phase Route for the Synthesis of Silicon Nanoclusters," <i>J. Am. Chem. Soc.</i> 118:12461-12462 (1996)	
	16	Liu et al., "A New Synthetic Route for the Synthesis of Hydrogen Terminated Silicon Nanoparticles," <i>Materials Science and Engineering</i> B96:72-75 (2002)	
	17	Mayeri et al., "NMR Study of the Synthesis of Alkyl-Terminated Silicon Nanoparticles from the Reaction of SiCl ₄ with the Zintl Salt, NaSi," <i>Chem. Mater.</i> 13:765-770 (2001)	
	18	Lam et al., "Large-Scale Synthesis of Ultrafine Si Nanoparticles by Ball Milling," <i>Journal of Crystal Growth</i> 220:466-470 (2000)	
	19	Borsella et al., "Optical and Morphological Characterization of Si Nanocrystals/Silica Composites Prepared by Sol-gel Processing," <i>Materials Science and Engineering</i> B79:55-62 (2001)	
	20	Botti et al., "Photoluminescence from Silicon Nano-Particles Synthesized by Laser-Induced Decomposition of Silane," <i>Journal of Applied Physics</i> 88:3396-3401 (2000)	
	21	Ehbrecht et al., "Photoluminescence and Resonant Raman Spectra of Silicon Films Produced by Size-Selected Cluster Beam Deposition," <i>Physical Review</i> 56:6958-6964 (1997)	
	22	Huisken et al., "Structured Films of Light-Emitting Silicon Nanoparticles Produced by Cluster Beam Deposition," <i>Applied Physics Letters</i> 74:3776-3778 (1999)	
	23	Ledoux et al., "Photoluminescence of Size-Separated Silicon Nanocrystals: Confirmation of Quantum Confinement," <i>Applied Physics Letters</i> 80:4834-4836 (2002)	
	24	Ledoux et al., "Effect of Passivation and Aging on the Photoluminescence of Silicon Nanocrystals," <i>Applied Physics Letters</i> 79:4028-4030 (2001)	
	25	Seraphin et al., "Influence of Nanostructure Size on the Luminescence Behavior of Silicon Nanoparticle Thin Films," <i>Journal of Materials Research</i> 12:3386-3392 (1997)	
	26	Wilson et al., "Quantum Confinement in Size-Selected, Surface-Oxidized Silicon Nanocrystals," <i>Science</i> 262:1242-1244 (1993)	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.



Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Complete if Known	
				Application Number	10/796,442
				Filing Date	March 9, 2004
				First Named Inventor	Swihart et al.
				Group Art Unit	2812
				Examiner Name	To Be Assigned
Sheet	4	of	4	Attorney Docket Number	19226/2282 (R-5782)

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS				
Examiner Initials [*]	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²	
	27	Littau et al., "A Luminescent Silicon Nanocrystal Colloid via a High-Temperature Aerosol Reaction," <i>J. Phys. Chem.</i> 97:1224-1230 (1993)		
	28	Higashi et al., "Comparison of Si(111) Surfaces Prepared Using Aqueous Solutions of NH ₄ F versus HF," <i>Appl. Phys. Lett.</i> 58:1656-1658 (1991)		
	29	Lie et al., "Preparation and Characterisation of Luminescent Alkylated-Silicon Quantum Dots," <i>Journal of Electroanalytical Chemistry</i> 538-539:183-190 (2002)		
	30	Buriak, "Organometallic Chemistry on Silicon and Germanium Surfaces," <i>Chem. Rev.</i> 102:1271-1308 (2002)		
	31	Wojtyk et al., "Modification of Porous Silicon Surfaces with Activated Ester Monolayers," <i>Langmuir</i> 18:6081-6087 (2002)		
	32	Li et al., "Luminescent Silicon Nanoparticles Capped by Conductive Polyaniline through the Self-Assembly Method," <i>Langmuir</i> 20:1963-1971 (2004)		
	33	Murray et al., "Synthesis and Characterization of Nearly Monodisperse CdE (E = S, Se, Te) Semiconductor Nanocrystallites," <i>J. Am. Chem. Soc.</i> 115:8706-8715 (1993)		
	34	Murray et al., "Synthesis and Characterization of Monodisperse Nanocrystals and Close-Packed Nanocrystal Assemblies," <i>Annu. Rev. Mater. Sci.</i> 30:545-610 (2000)		
	35	Fojtik et al., "Formation of Nanometer-Size Silicon Particles in a Laser Induced Plasma in SiH ₄ ," <i>Ber. Bunsenges. Phys. Chem.</i> 97:1493-1496 (1993)		
	36	Fojtik et al., "Luminescent Colloidal Silicon Particles," <i>Chem. Phys. Lett.</i> 221:363-367 (1994)		

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.